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October 14, 2004

VIA ELECTRONIC FILING

Marlene H. Dortch Secretary Federal Communications Commission 445 12th Street, S.W. Washington, DC 20554

Re: NOTICE OF EX PARTE MEETINGS

ET Docket No. 04-186

<u>Unlicensed Operation in the TV Broadcast Bands</u>

Dear Ms. Dortch:

On October 13, 2004, representatives of Shure Incorporated ("Shure") held a series of *ex parte* meetings in the above-captioned docket to discuss issues raised in the pending Notice of Proposed Rulemaking ("Notice"). Attending from Shure were Ahren Hartman, Principal Engineer, Advanced Development; and Edgar Reihl, P.E., Principal Engineer, Advanced Development. In addition, Catherine Wang and Jeanne Stockman of Swidler Berlin Shereff Friedman, outside counsel to Shure, attended the meetings. Shure met with Jennifer Manner of Commissioner Abernathy's office, Sam Feder of Commissioner Martin's office, and Bruce Franca, Alan Stilwell, Alan Scrime, Karen Rackley, and Hugh Van Tuyl, all of the Commission's Office of Engineering and Technology ("OET").

During these meetings, Shure discussed how the introduction of unlicensed devices in the TV bands, under the current proposal and assumptions set forth in the Notice, will likely cause harmful interference to wireless microphones and similar audio products. Such interference could adversely affect the many important productions and activities that rely on high-quality wireless audio products, including for example, news coverage, sporting events, and TV and music productions.

We discussed Shure's experiments demonstrating that wireless audio products, including wireless microphones, would experience harmful interference if unlicensed devices were

Marlene H. Dortch October 14, 2004 Page 2

permitted to operate on "vacant" TV channels under the paramenters and assumptions proposed in the Notice. We discussed several possible solutions that could, if further developed and properly implemented, provide meaningful interference protection to wireless microphones in the event that the Commission determines that unlicensed devices should be allowed to operate in vacant TV channels. In light of the varied uses of wireless microphones in the United States, we discussed several approaches that may be necessary, including (1) a designation of some number of UHF and VHF channels where unlicensed devices will not operate, (2) a requirement that unlicensed devices use spectrum sensing techniques to avoid harmful interference to operating wireless microphones, (3) a requirement that unlicensed devices be able to detect and receive data from a wireless microphone beacon. Shure also updated the Commission on the progress of the IEEE Working Group considering this issue, and advocated that any protections for wireless microphones must be codified in the Commission's Rules.

In addition, attached is a diagram provided to OET depicting the shortfalls of spectrum sensing as an interference mitigation tool when the power of the unlicensed base station is much greater than the power of the wireless microphone. Finally, attached is the presentation provided to Ms. Manner and Mr. Feder.

If you have any questions regarding these meetings, please do not hesitate to contact the undersigned.

Very truly yours,

Catherine Wang Jeanne W. Stockman

cc (by email): Meeting Participants